

REMARKS/ARGUMENTS

Claims 1-10 and 12-17 are pending in the application. Claim 11 has been cancelled. Claim 12 has been rewritten as an independent claim by including all the feature of the canceled claim 11. No new matter was added by way of these amendments. Applicants respectfully request the Examiner withdraw the rejections and reconsider the application in view of the amendments and remarks contained herein.

In the amended claim set, claims 1 and 12 are in independent format. In the remarks that follow, Applicants first discuss the independent claims 1 and 12 and then turn to the dependent claims of the claim set.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-3, 5, 7, 10-12, 14 and 16 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bajko (US 20040196796 A1). Applicants respectfully traverse the rejection.

Independent claim 1 recites:

a method for reducing load of Home Subscriber Server (HSS)'s interface, comprising:

Upon receiving a request message from Serving Call Session Control Function (S-CSCF) comprising a request for a storing name of the S-CSCF and for downloading a user's subscription information, a HSS first storing the name of S-CSCF in the request message, then returning to the S-CSCF a response message comprising the user's subscription information.

Bajko discloses a communication system and a method wherein a subscription can be associated with a plurality of public and private identities are provided, the method including the steps of storing in a user information storage information of the relationships between the identities and of a control entity in which at least one of the public and private identities is registered, and allocating the control entity to a further registration based on the information stored in the user information storage. See Bajko, abstract.

In rejecting claim 1, the Examiner asserted that Bajko teaches every element of claim 1 and cited a number of portions of Bajko to support the rejection. Applicants have reviewed the cited portions and the remainder of Bajko and found no such teaching. Specifically, the Examiner pointed to Bajko, paragraph [0037], and stated that Bajko discloses that "*HSS returns the S-CSCF name in response.*" See the Office Action, page 2. In Bajko, paragraph [0037], lines 5-8, it is recited that "*[a]s shown in FIG. 3, in the case of an existing*

registration the HSS shall return the S-CSCF name in the response given for the user registration status query.” According to Bajko, FIG 3, it is clearly depicted that “*the response given for the user registration status query*” is returned to the I-CSCF. Claim 1, however, expressly states “returning to the S-CSCF a response message.” (Emphasis added) Therefore, the teaching of returning the S-CSCF name in the response to the I-CSCF disclosed by Bajko should not be confused with the feature of claim 1.

In addition, Bajko merely teaches that “*the HSS shall return the S-CSCF name in the response given for the user registration status query.*” However, Claim 1 recites “*a response message comprising the user’s subscription information.*” (Emphasis added) Bajko makes no mention of a message including “*the user’s subscription information*” as set forth in claim 1. Therefore, Bajko does not teach or suggest returning to the S-CSCF a response message comprising the user’s subscription information.

Furthermore, in the Office Action, the Examiner pointed out that Bajko discloses that “*HSS stores user information*” in Bajko, paragraph [0033]. Applicants respectfully submit that this teaching found in Bajko should not be confused with the features set forth in claim 1. Specifically, in Bajko, paragraph [0033], lines 2-6, it is recited that “*the HSS is configured to store information of identities of the user and of a call control entity in which the user is registered*” and that “[t]he home subscriber server (HSS) 26 may also store information such as the status of the registration identities (ID) (currently-registered-with a S-CSCF or currently-not-registered).” However, HSS storing information such as the status of the registration identities (ID) (currently-registered-with a S-CSCF or currently-not-registered) should not be confused with the claim feature of “*Upon receiving a request message from S-CSCF comprising a request for a storing name of the S-CSCF and for downloading a user’s subscription information, a HSS first storing the name of S-CSCF in the request message*” in claim 1. According to claim 1, when receiving the request message from S-CSCF including the request for storing the name of the S-CSCF and for downloading the user’s subscription information, HSS first stores the S-CSCF name in the request message, and then returns the requested user’s subscription information to the S-CSCF sending the request, thus may simplifying the steps for inquiring about user’s subscription information, optimizing the service procedure, and reducing the load of HSS’ interface. Bajko make no mentions of these claim features and therefore does not teach or suggest “[u]pon receiving a request message from S-CSCF comprising a request for a storing name of the S-CSCF and for downloading a

user's subscription information, a HSS first storing the name of S-CSCF in the request message." For the aforementioned reasons, Applicants respectfully submit that claim 1 is not anticipated by Bajko.

Independent claim 12 as amended recites:

A method for reducing load of Home Subscription Server's (HSS) interface, comprising:

upon receiving a message from a I-CSCF for inquiring about the information of S-CSCF, a HSS returning to the I-CSCF an inquiry response message comprising a information needed for determining an S-CSCF; the I-CSCF determining a S-CSCF that has the capability to serve a UE and forwarding request message of the UE to the determined S-CSCF, wherein, when a Public User Identity performs registration for the first time,

if there is at least one Public User Identity of the UE requesting registration that has been registered in the HSS and the registration is still valid, and the HSS determines there is no need for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that is serving the UE;

if there is at least one Public User Identity of the UE requesting registration of which the registration status is unregistered or the registration has expired, but the HSS still stores the name of the S-CSCF that was used by the UE last time, or if the UE has been assigned an S-CSCF by the HSS as an unregistered party that is called, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served the UE;

if HSS has stored the name of the S-CSCF that has served or is serving the UE and the HSS is not sure whether it is needed for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served or is serving the UE and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration;

if there is no assigned S-CSCF that has served the UE stored in the HSS, then said information needed for determining an S-CSCF comprises the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration.

Bajko recites in paragraphs [0036] that the HSS “*keeps a record of the relations between various identities associated with the subscription*” and “*maintains information regarding identities that are registered to the S-CSCFs*,” and that “*in case of registration of a further identity related to an already existing registration, the same S-CSCF can be allocated for this registration by providing appropriate rooting information such as the name and/or address of the S-CSCF.*” In paragraph [0037] and FIG. 3, Bajko describes that “*the HSS may detect e.g. in the case of an initial registration of, for example, a public user identity (IMPU) whether any identities of the same user or subscription has already been registered*” and “*in case of an existing registration the HSS shall return the S-CSCF name in the response given for the user registration status query.*” Bajko at best teaches that the HSS may allocate the same S-CSCF for registration of a further identity related to an already existing registration by providing the name of the S-CSCF. However,

1) Claim 12 states “*if there is at least one Public User Identity of the UE requesting registration that has been registered in the HSS and the registration is still valid, and the HSS determines there is no need for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that is serving the UE.*” According to Claim 12, the name of the S-CSCF serving the UE can be provided when the registration is still valid and the HSS also determines that there is no need for the I-CSCF to re-select an S-CSCF to serve the UE. Bajko does not suggest, much less address, the condition for providing the name of the S-CSCF serving the UE.

2) Claim 12 states “*if there is at least one Public User Identity of the UE requesting registration of which the registration status is unregistered or the registration has expired, but the HSS still stores the name of the S-CSCF that was used by the UE last time, or if the UE has been assigned an S-CSCF by the HSS as an unregistered party that is called, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served the UE.*” According to Claim 12, the name of the S-CSCF that has served the UE is provided if the HSS still stores the name of the S-CSCF that was used by the UE last time, or if the UE has been assigned an S-CSCF by the HSS as an unregistered party that is called. Bajko clearly fails to teach or suggest the condition for providing the name of the S-CSCF that has served the UE. Furthermore, Bajko merely discloses providing the name of the S-CSCF in the existing registration. It, however, fails to teach providing the name of the S-CSCF that has served the UE as recited in claim 12 as amended.

3) Claim 12 states “*if HSS has stored the name of the S-CSCF that has served or is serving the UE and the HSS is not sure whether it is needed for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served or is serving the UE and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration.*” Claim 12 sets forth the condition for providing the information needed for determining an S-CSCF comprises the name of the S-CSCF that has served or is serving the UE and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration. Bajko makes no mentions of these claim features. In addition, in claim 12, besides the name of the S-CSCF that has served or is serving the UE, the information needed for determining an S-CSCF further includes the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration. Bajko clearly fails to teach the information needed for determining an S-CSCF as set forth in claim 12.

4) Claim 12 states “*if there is no assigned S-CSCF that has served the UE stored in the HSS, then said information needed for determining an S-CSCF comprises the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration.*” Claim 12 thus sets forth the condition of providing the information needed for determining an S-CSCF or the information needed for determining an S-CSCF (including the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration). Bajko clearly fails to teach or suggest these claim features either.

For the aforementioned reasons, Applicants submit that Bajko fails to anticipate claim 12 and therefore respectfully request the Examiner withdraw the rejections.

As for dependent claims 2-3, 5, 7, 10, 14, and 16, without conceding the Examiner’s assertion, Applicants point out that these claims depend from independent claims 1 and 12 and therefore include all of the limitations of the independent claims. Therefore, Applicants respectfully submit that these dependent claims patentably distinguish from Bajko for at least the reasons discussed above and request the Examiner withdraw the rejections.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 4, 6, 8 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bajko in view of Phan Anh (US 2004/0185848 A1) and Claims 9, 15 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bajko in view of Flykt (US 7366303 B2).

Applicants respectfully traverse these rejections. As discussed above, Bajko fails to disclose every element of independent claims 1 and 12. Neither Phan Anh nor Flykt makes up the deficiencies of Bajko. Since claims 4, 6, 8, 9, 13, 15, and 17 depend from independent claims 1 and 12, they include all of the limitations of the independent claims. Therefore, Applicants respectfully submit that dependent claims 4, 6, 8, 9, 13, 15, and 17 patentably distinguish from any combination of Bajko, Phan Anh, and Flykt for at least the reasons discussed above and request the Examiner withdraw the rejections.

CONCLUSION

A prompt indication of allowability of all claims 1-10 and 12-17 is earnestly solicited.

Should the examiner wish to discuss the foregoing, or any matter of form in an effort to advance this application toward allowance, he is urged to telephone the undersigned at the indicated number.

Respectfully submitted,



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